

This diagram shows a cross-sectional view of a semiconductor device. A central opening is formed in the upper layers, with a width labeled T_w . The opening is defined by side walls labeled 21a and 21b, and the bottom surface is labeled 21. The device consists of several layers: a top layer 22, followed by layers 19, 17, 16, 15, 14, and a stack of layers 13c, 13b, and 13a. Below these is layer 12, and the bottommost layer is 11. A dashed line labeled S indicates a symmetry plane. On the right side, a bracket labeled A1 groups layers 19 through 13a. Horizontal dimensions D and E are indicated at the bottom, representing the distance from the center of the opening to the left and right edges, and the width of the opening, respectively. Arrows in layer 16 indicate current flow directions.

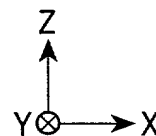


FIG. 2

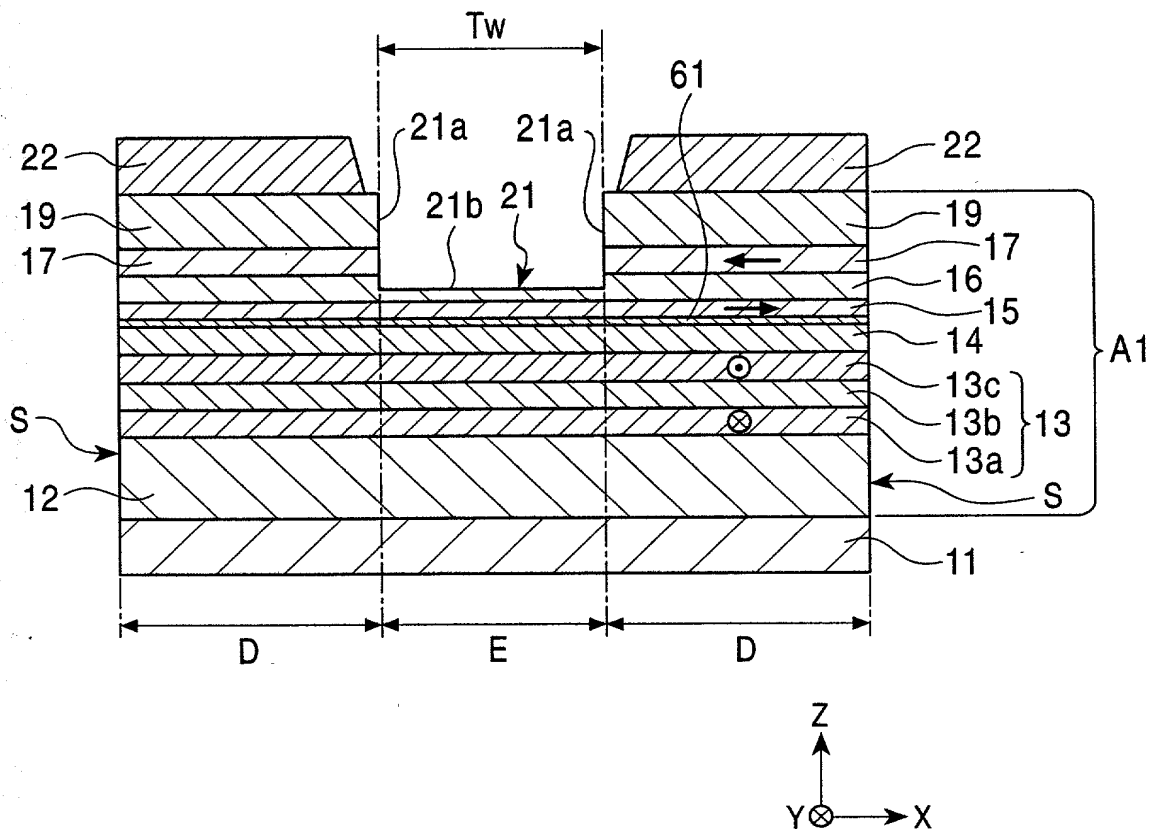
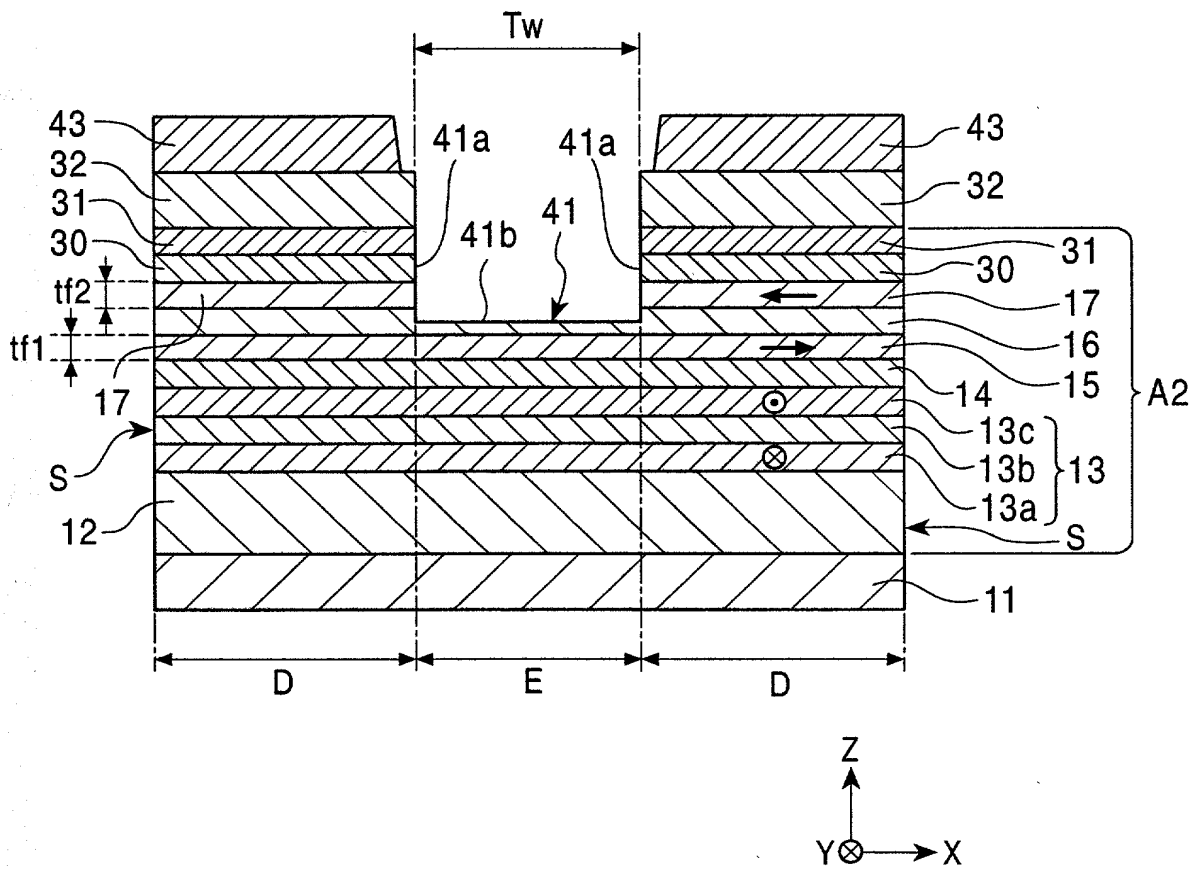


FIG. 3



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FIG. 4

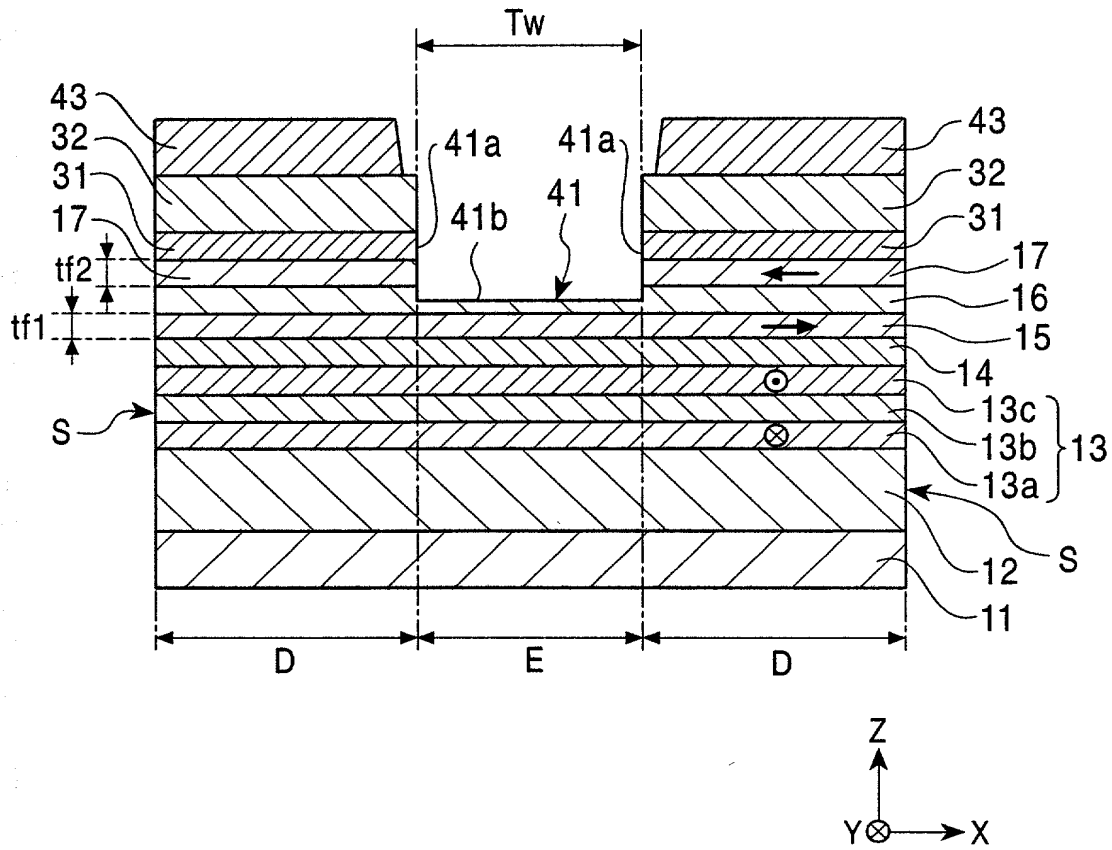


FIG. 5

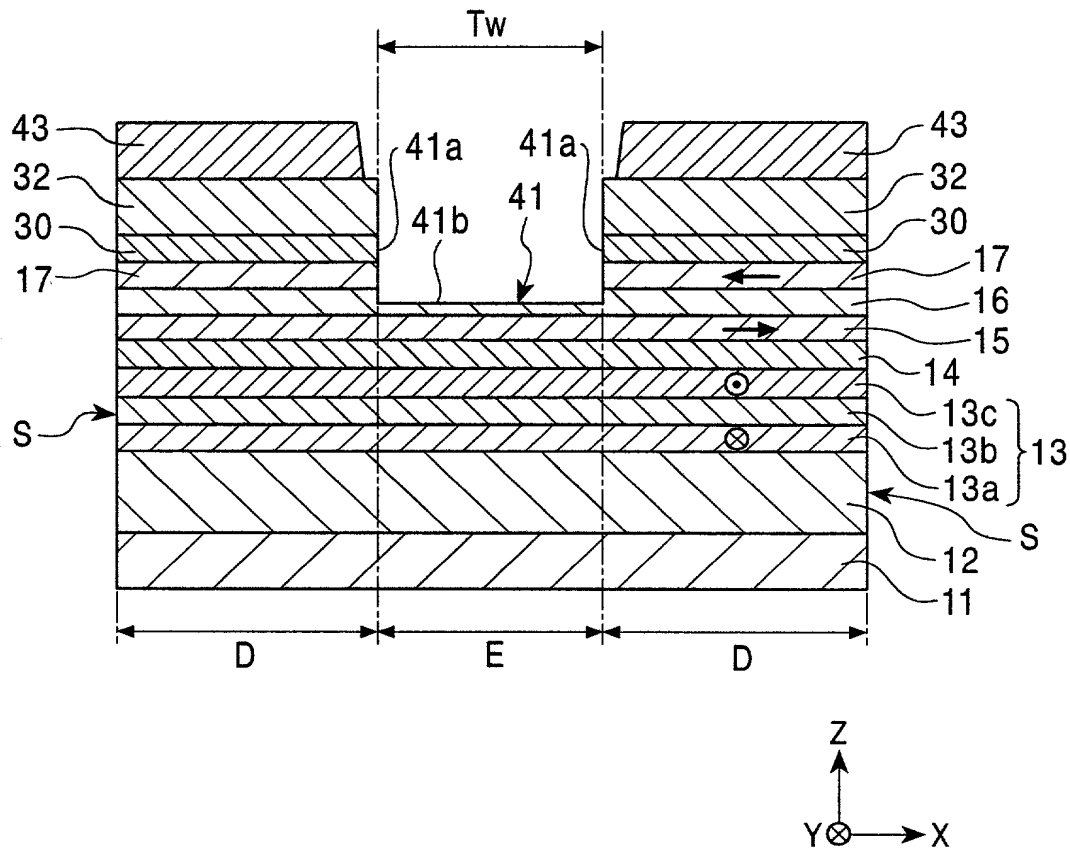
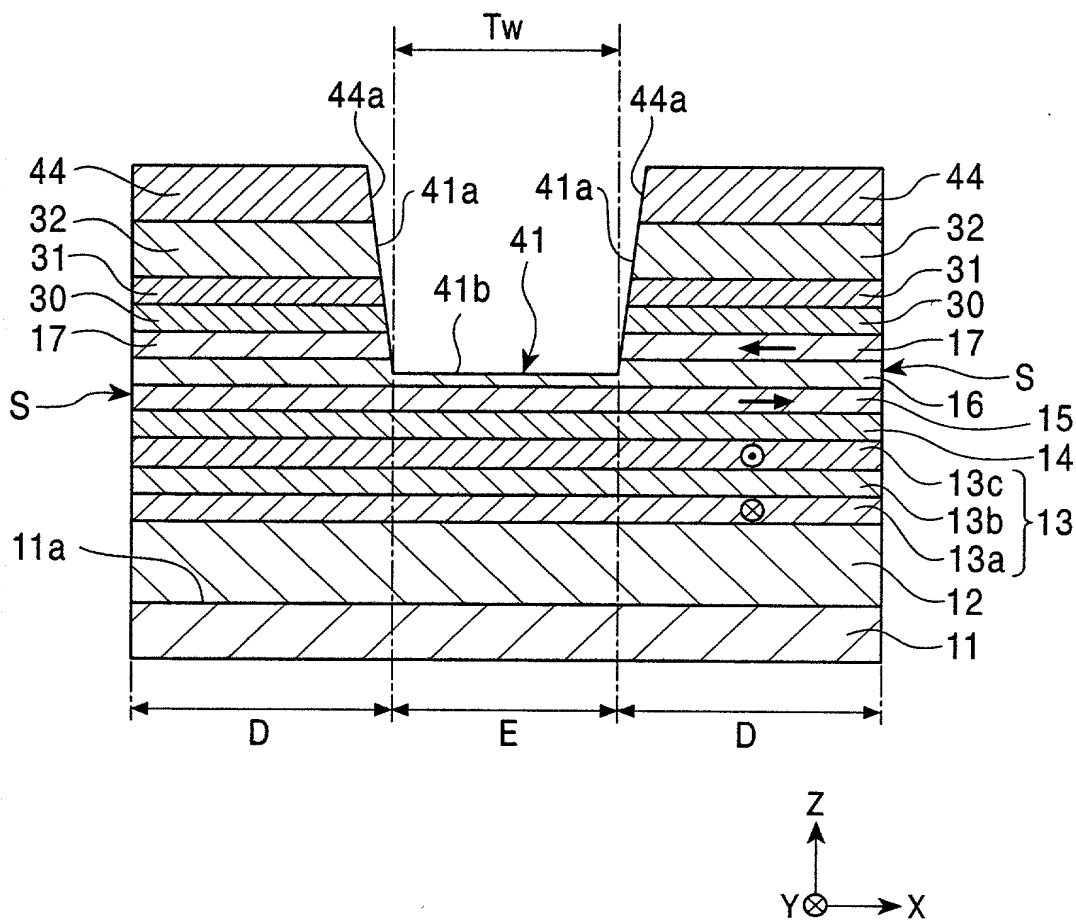


Fig. 1 is a cross-sectional view of a semiconductor device. The device consists of a central region 21 with a width T_w . The central region 21 is divided into sub-regions 21a and 21b. The device is divided into three sections of width D and a central section of width E . The layers are labeled 11, 12, 13a, 13b, 13c, 14, 15, 16, 17, 32, and 44. A coordinate system (X, Y, Z) is shown at the bottom right.

FIG. 7



This cross-sectional view shows a central opening 21 with a width T_w . The opening is defined by a layer 21a and contains a layer 21b. The device is built on a substrate 11 with multiple layers 12, 13a, 13b, 13c, 14, 15, 16, 17, 30, and 31. A central region 32 is surrounded by a layer 50. Arrows indicate current flow in the layers 17 and 16.

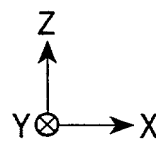


FIG. 9

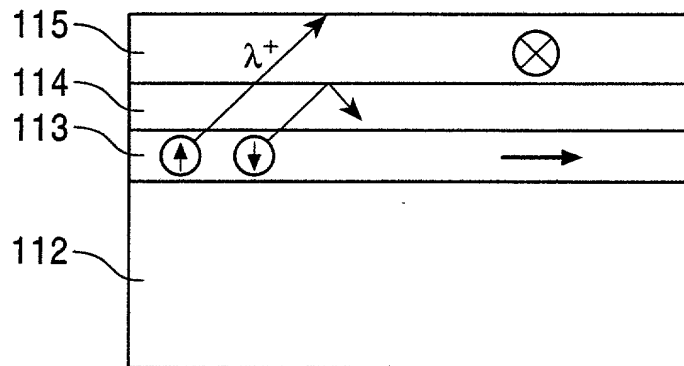


FIG. 10

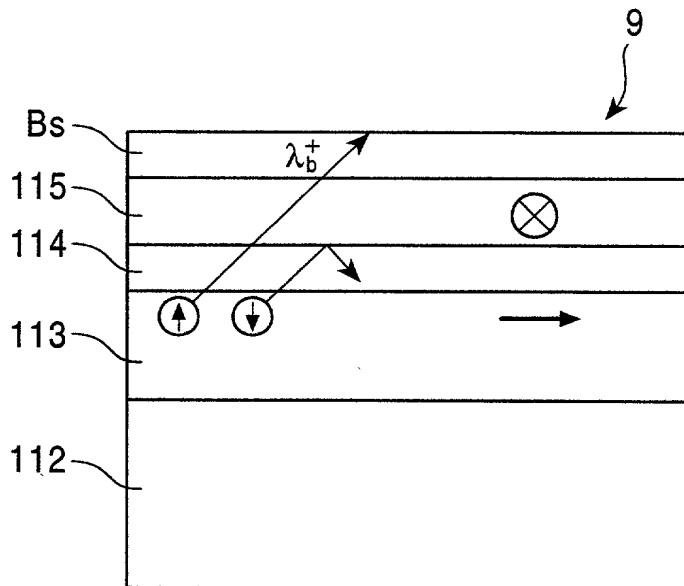


FIG. 11

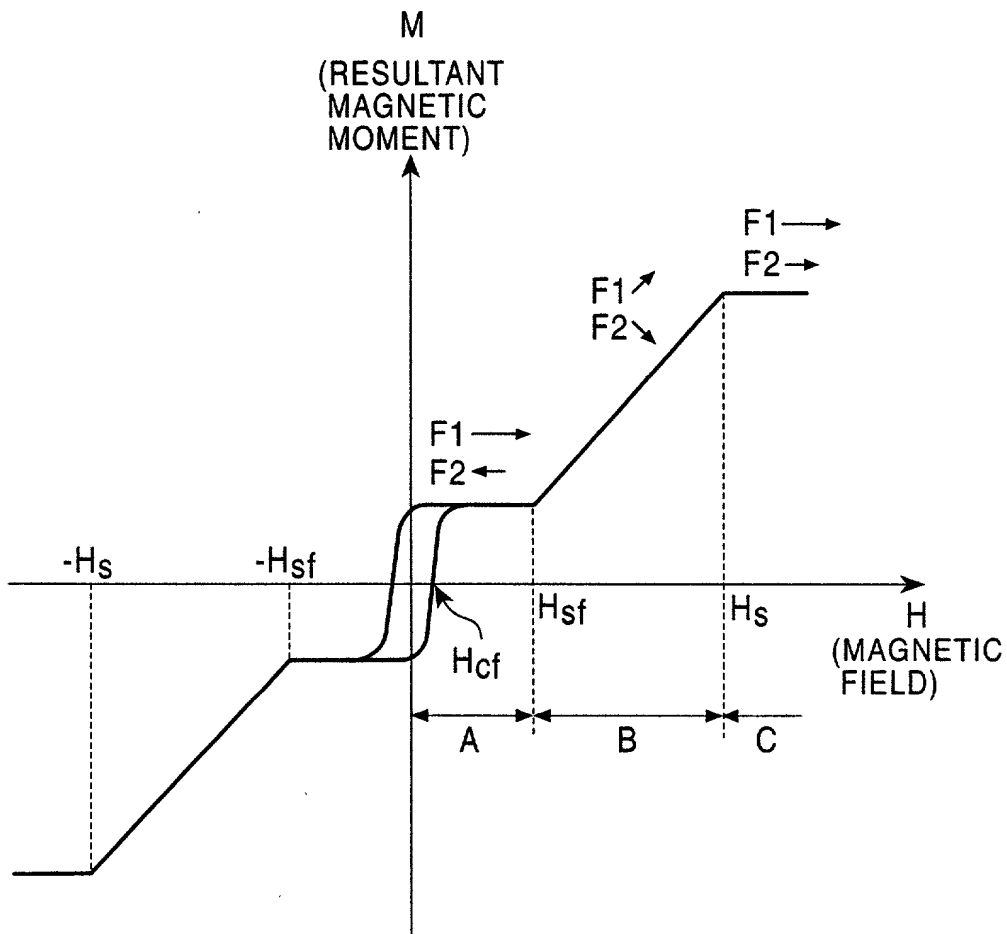


FIG. 12
PRIOR ART

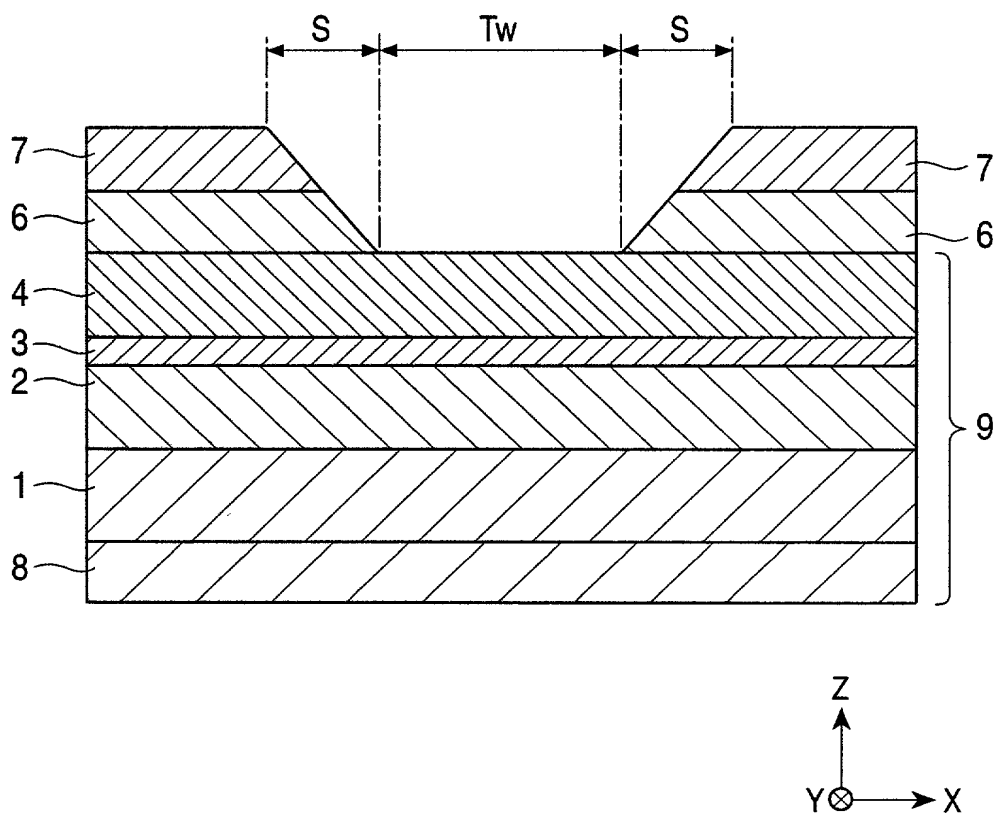
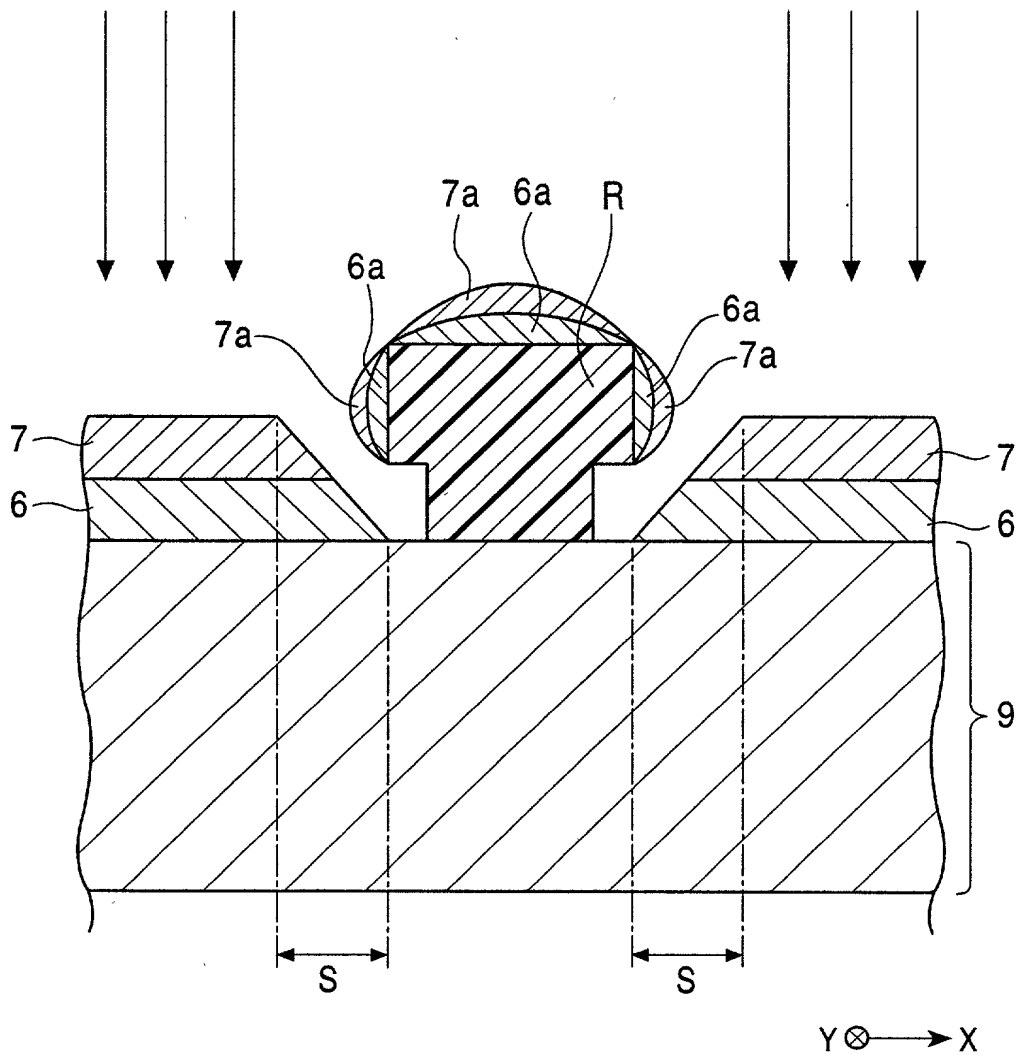


FIG. 13
PRIOR ART



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FIG. 14

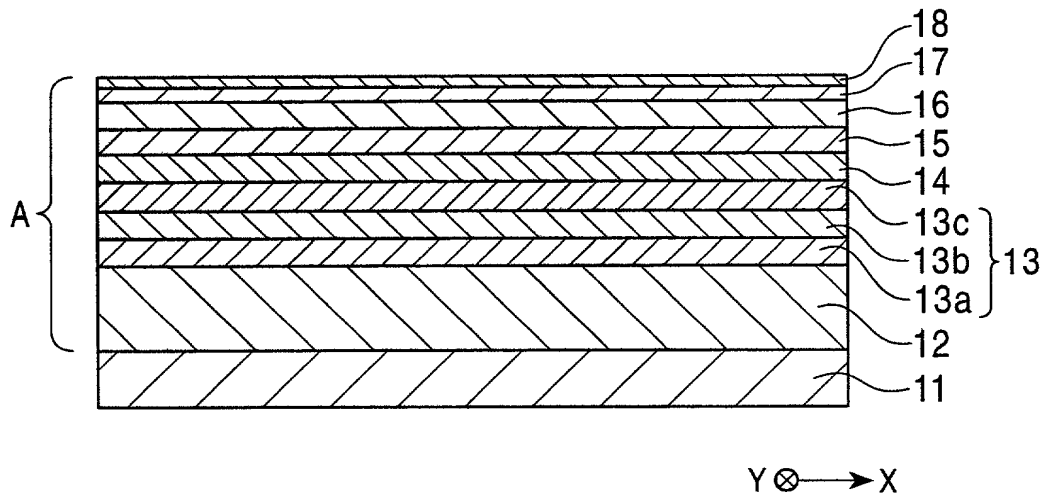
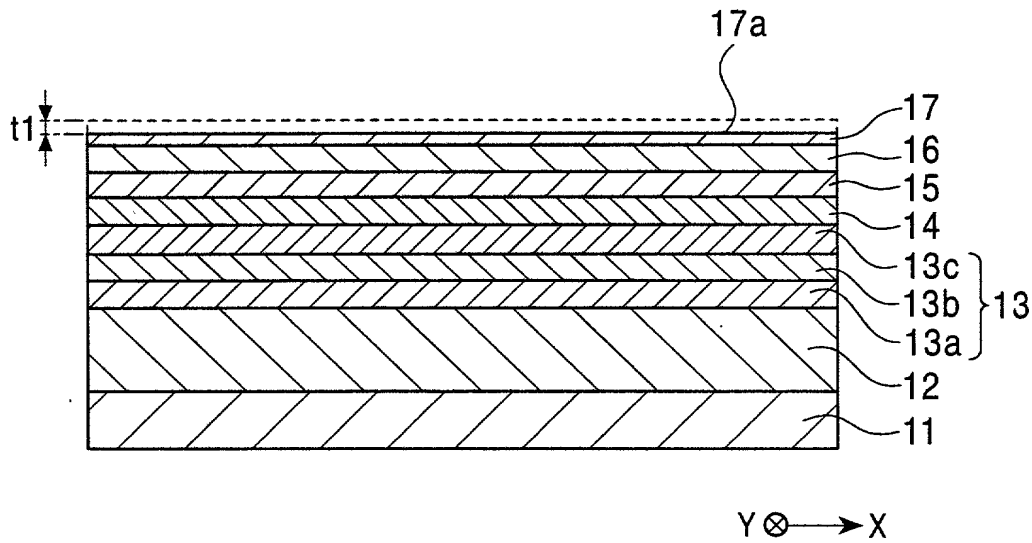


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FIG. 16

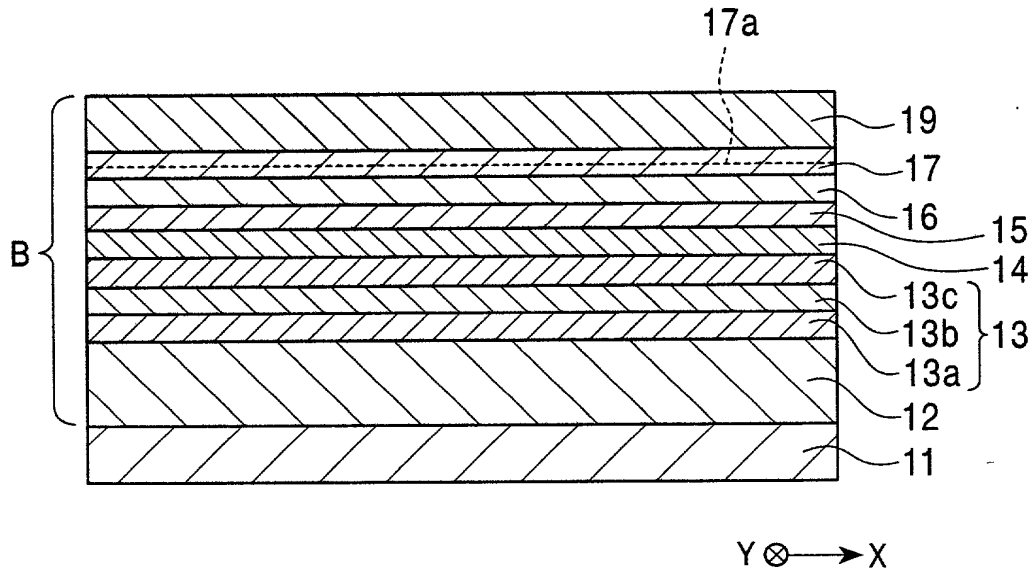
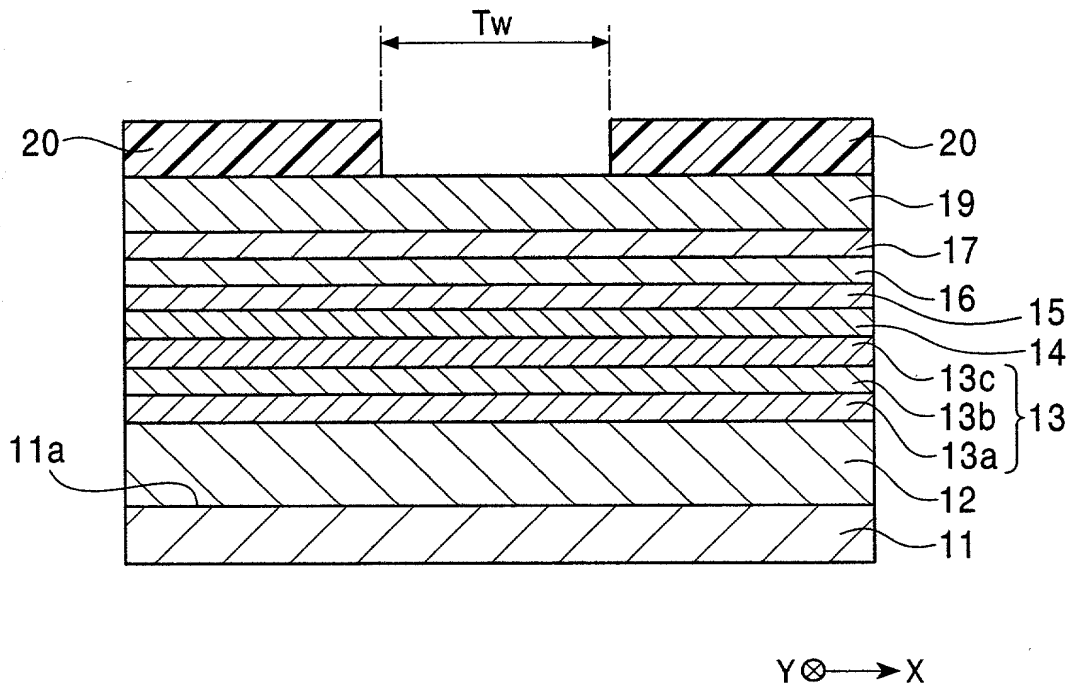
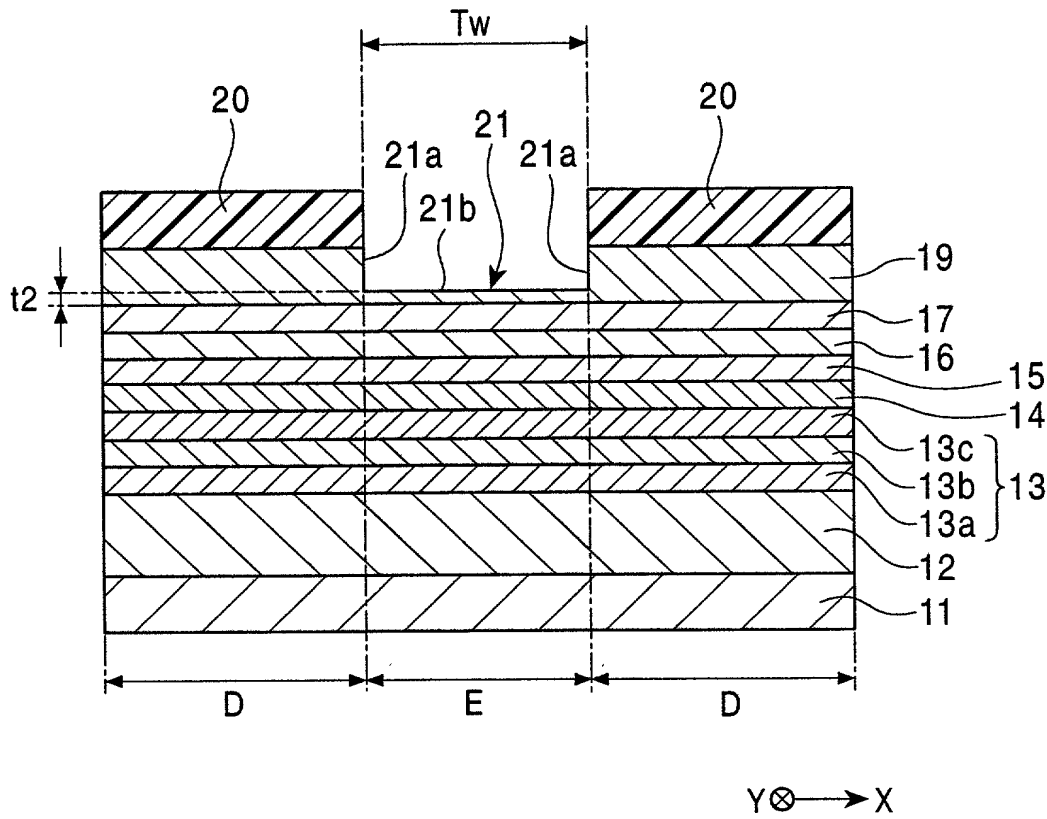


FIG. 17



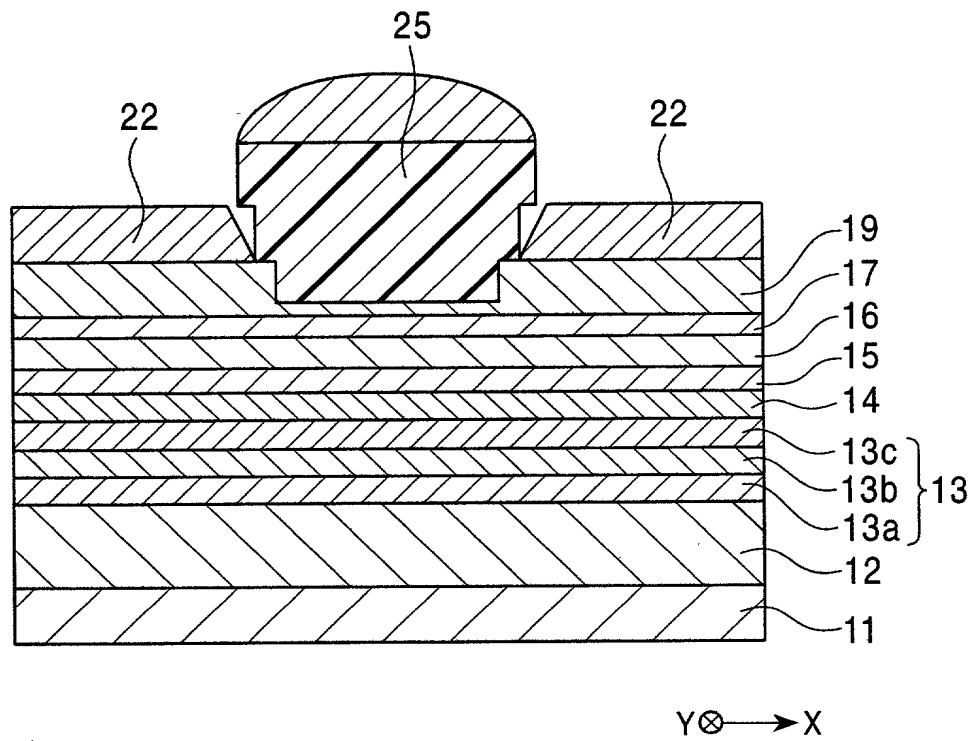
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FIG. 18



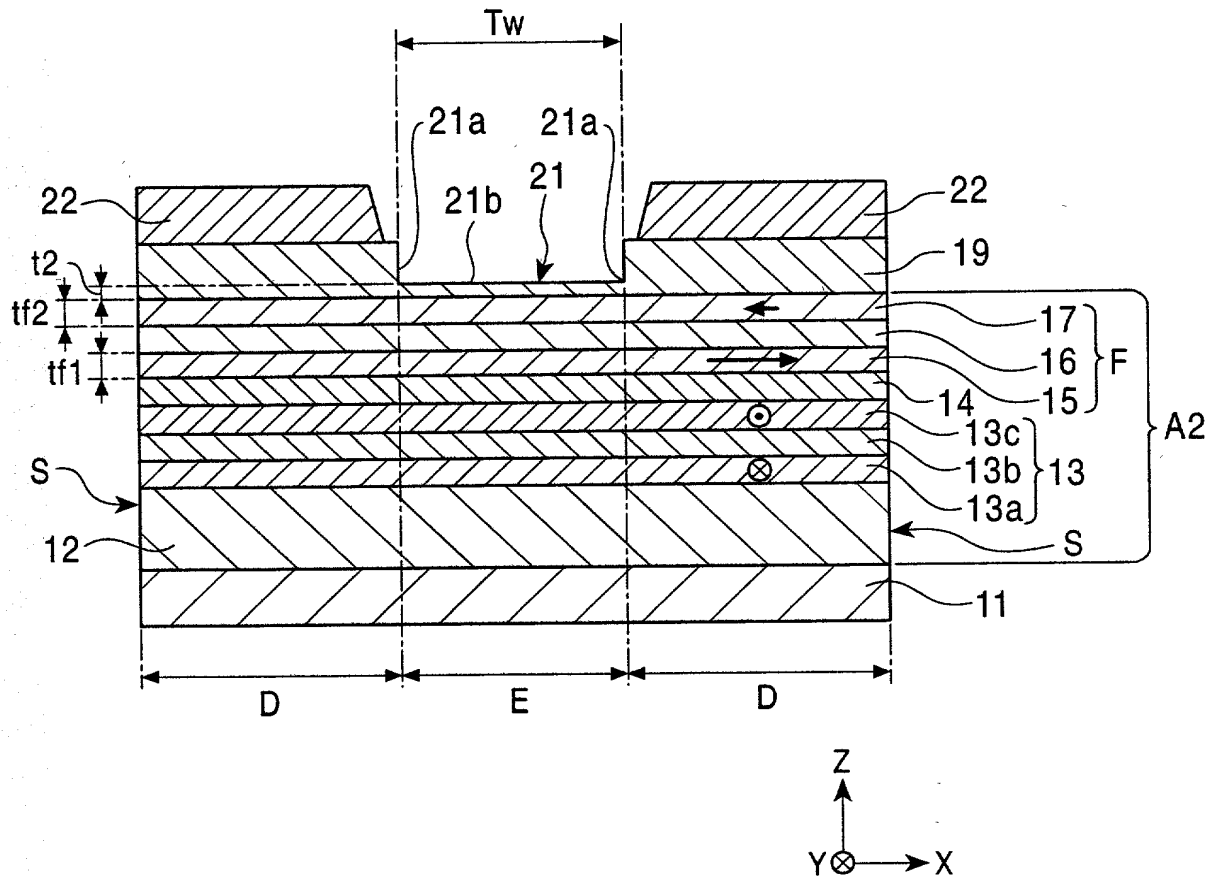
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FIG. 19



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FIG. 20



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FIG. 21

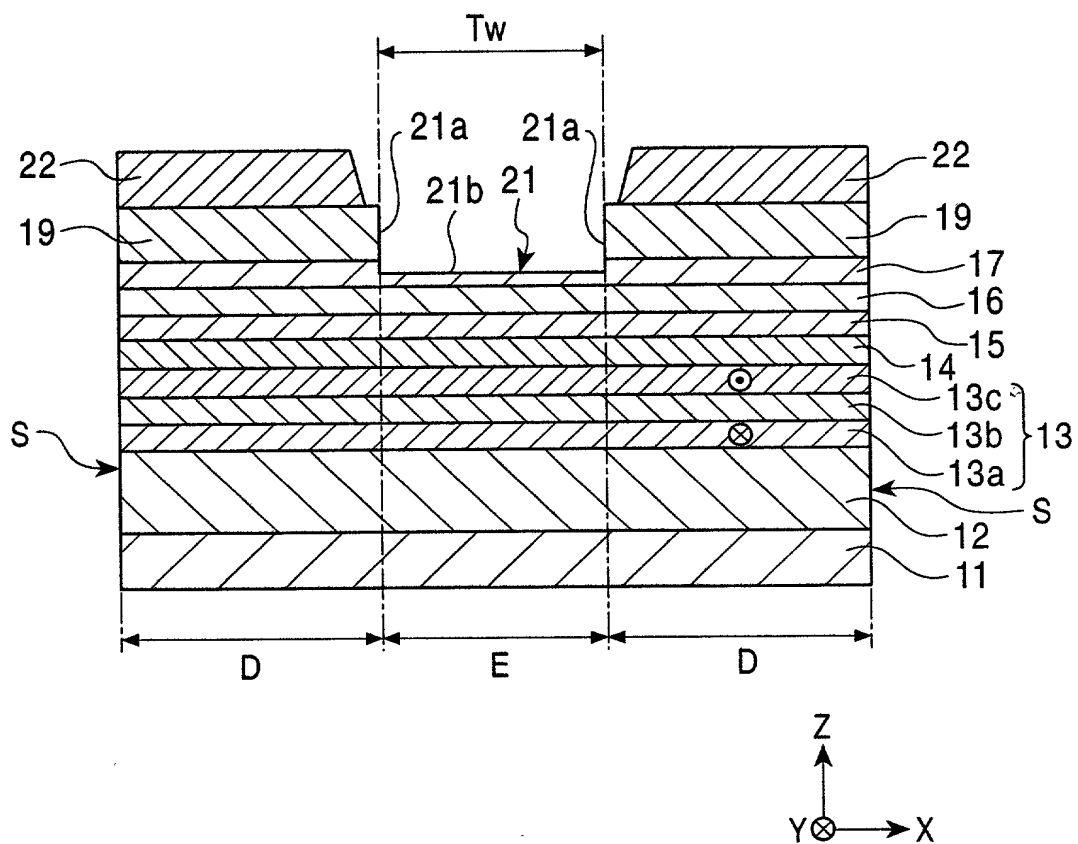
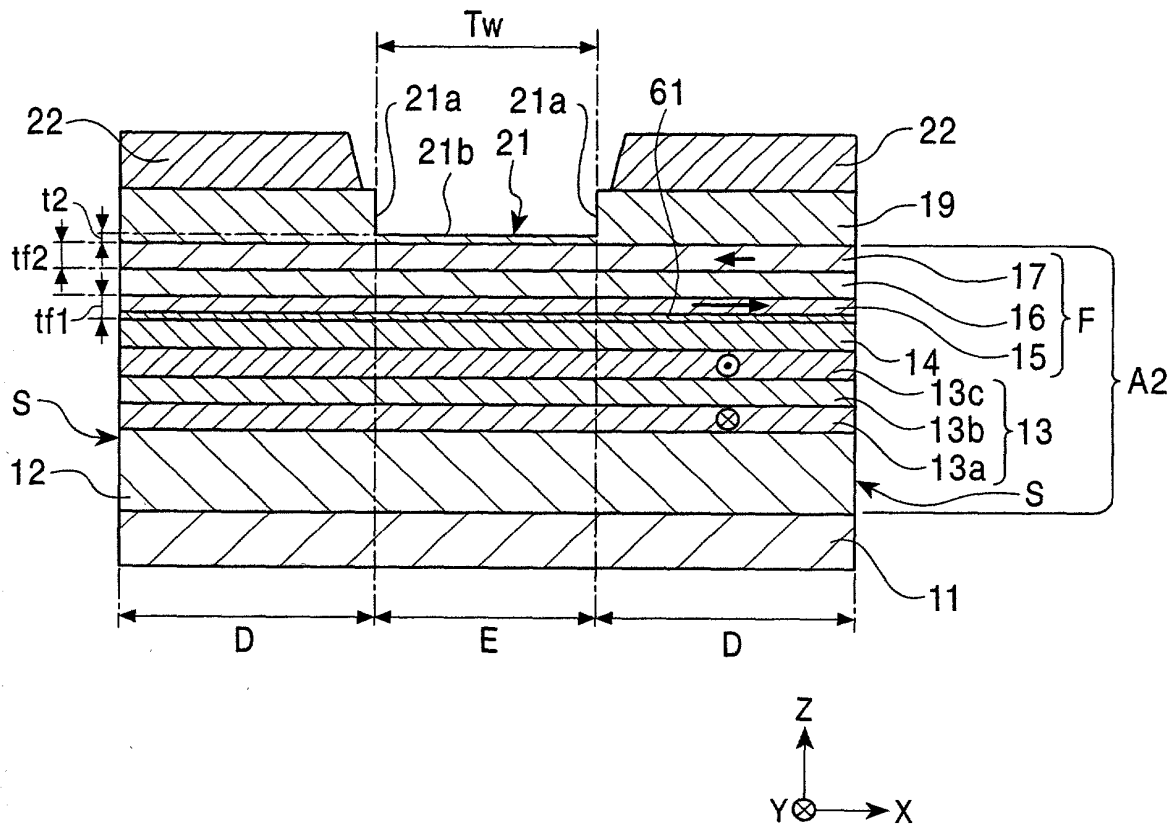


FIG. 22



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FIG. 23

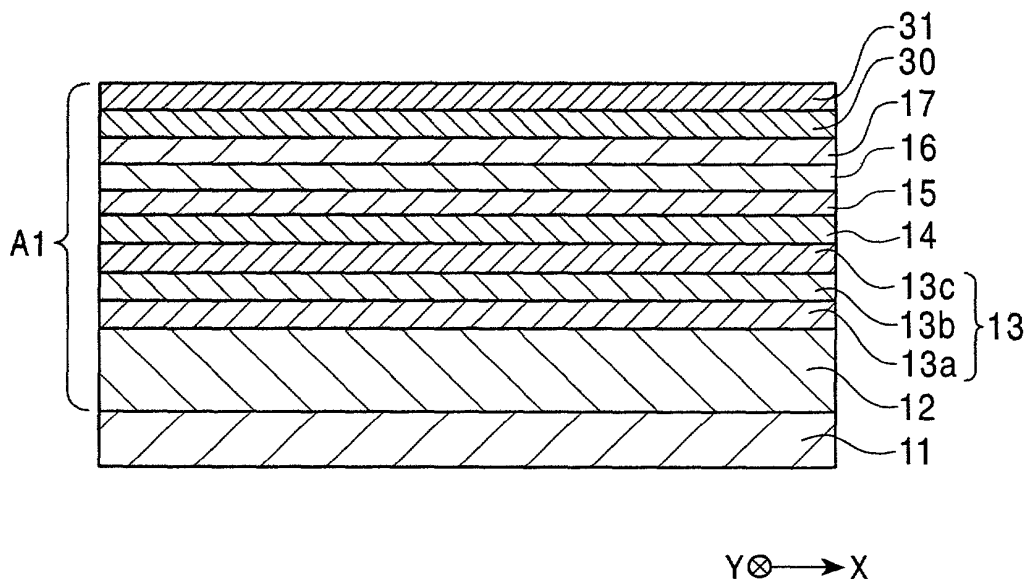
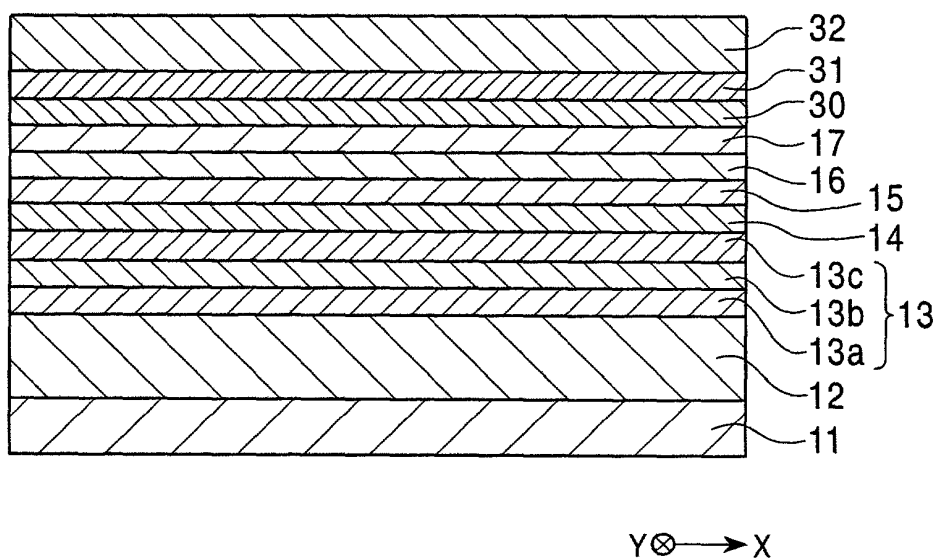
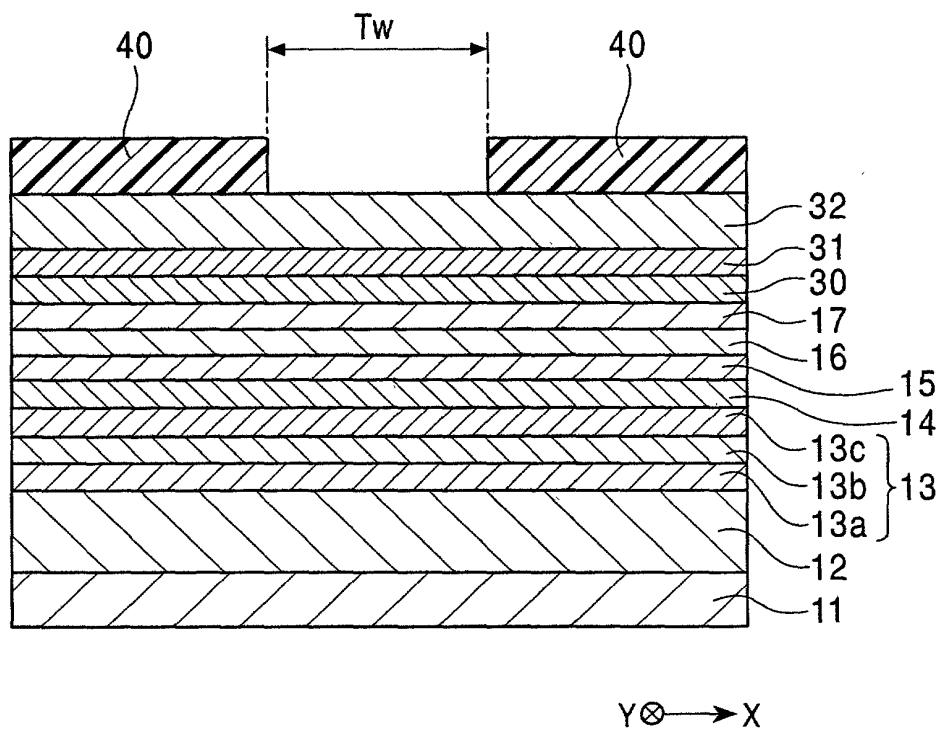


FIG. 24



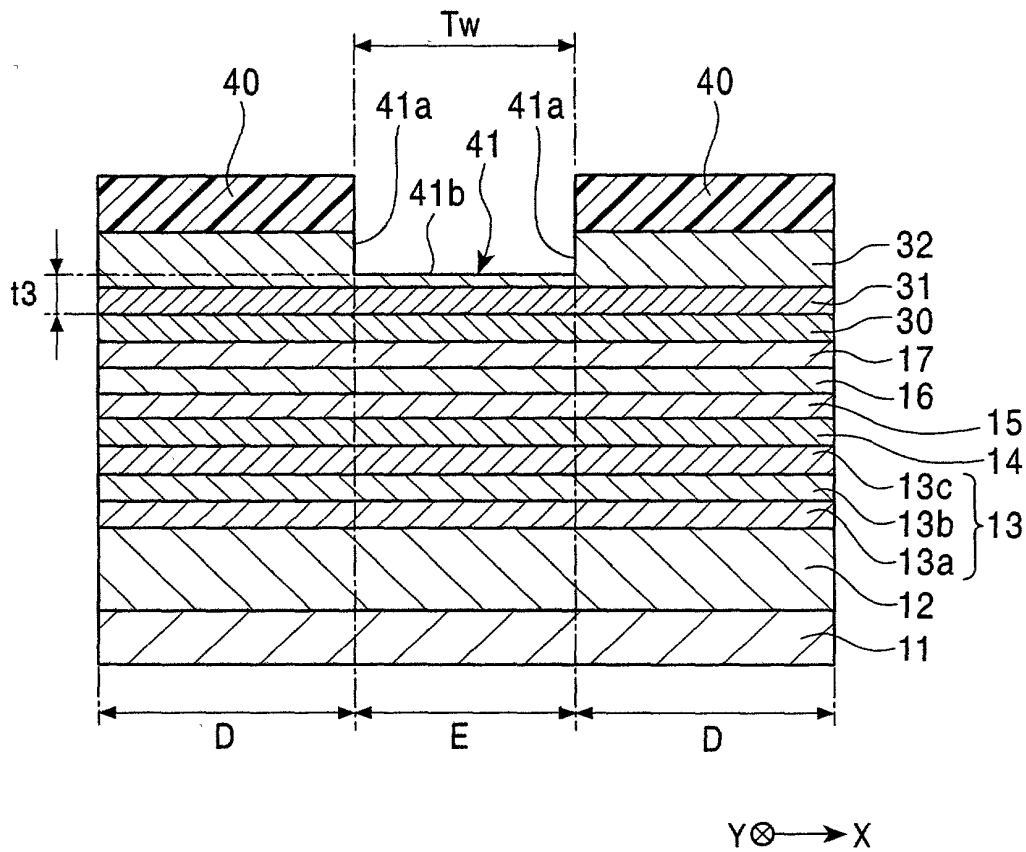
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FIG. 25



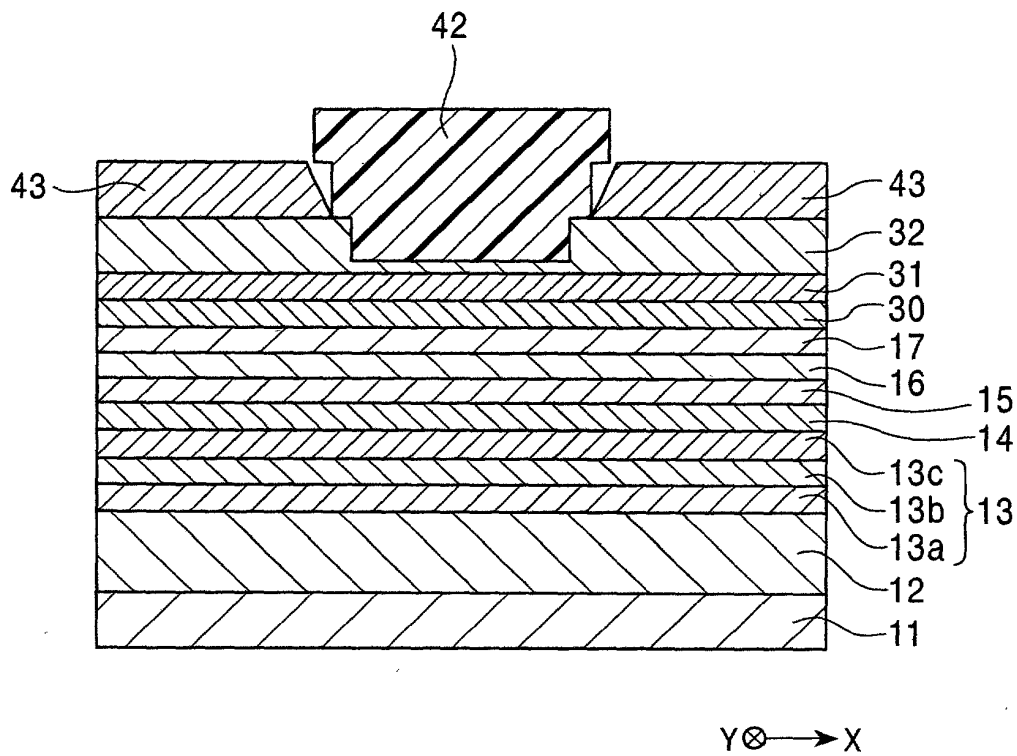
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FIG. 26



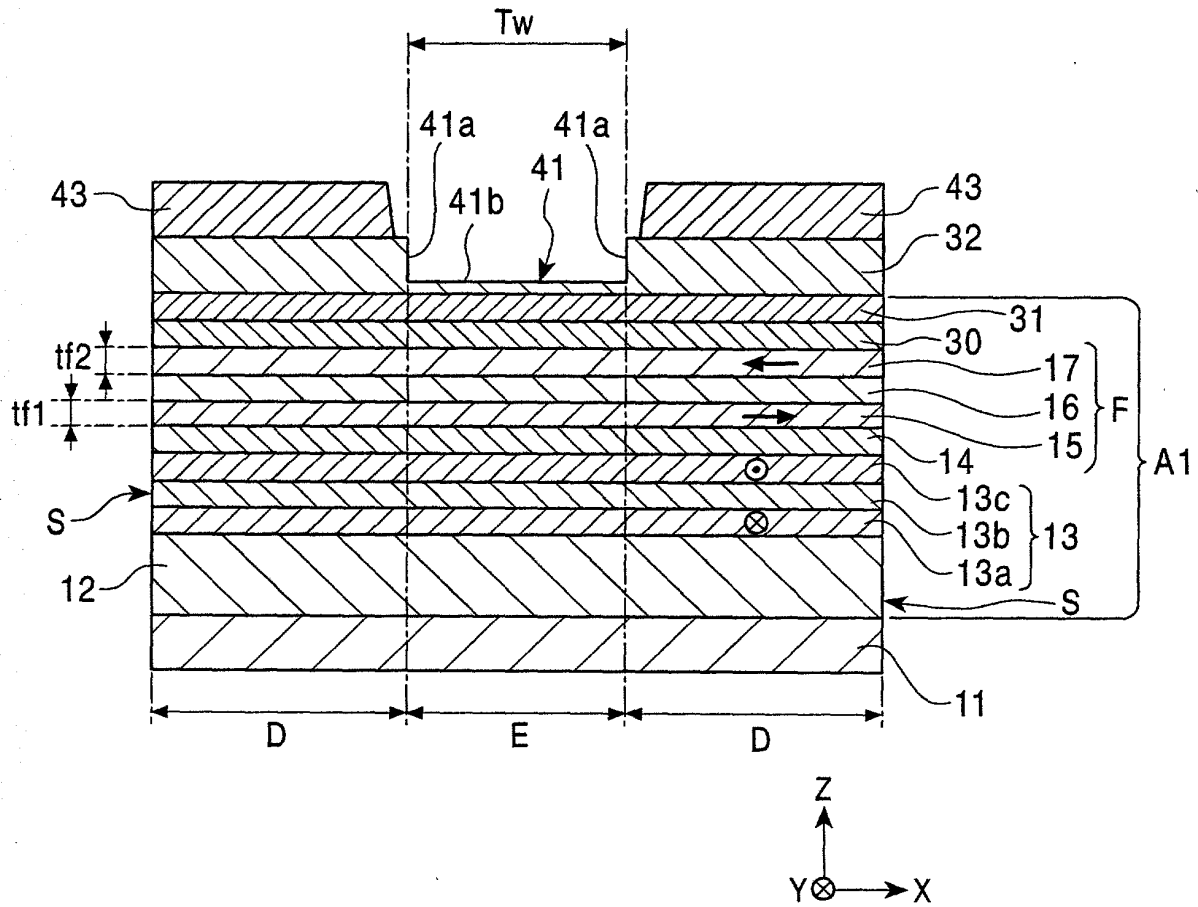
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FIG. 27



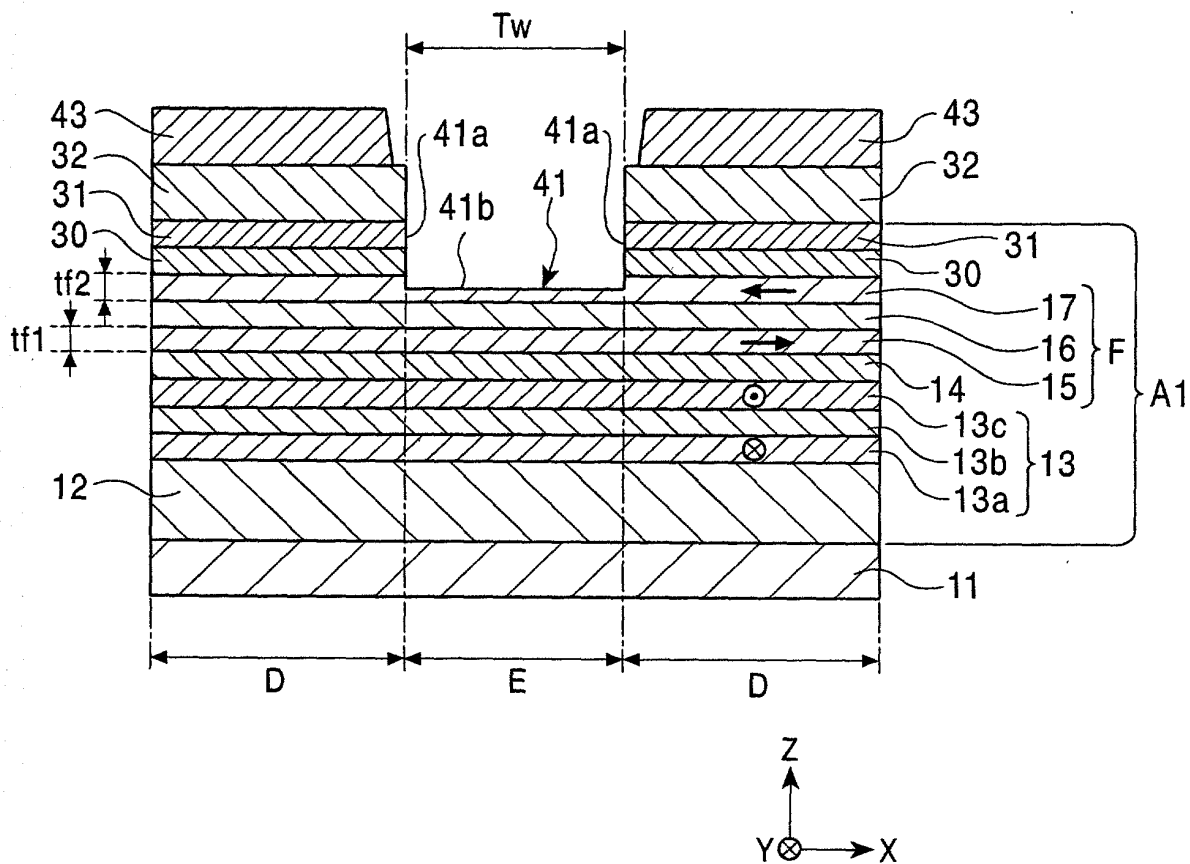
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FIG. 28



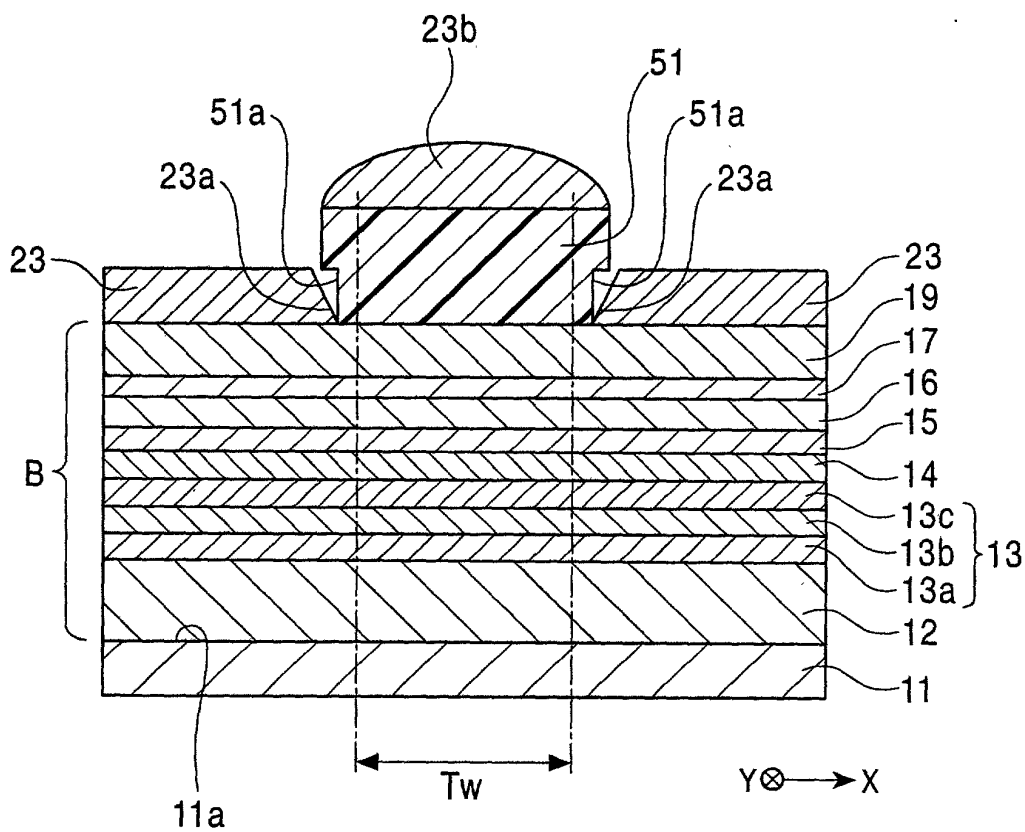
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FIG. 29



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FIG. 30



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FIG. 31

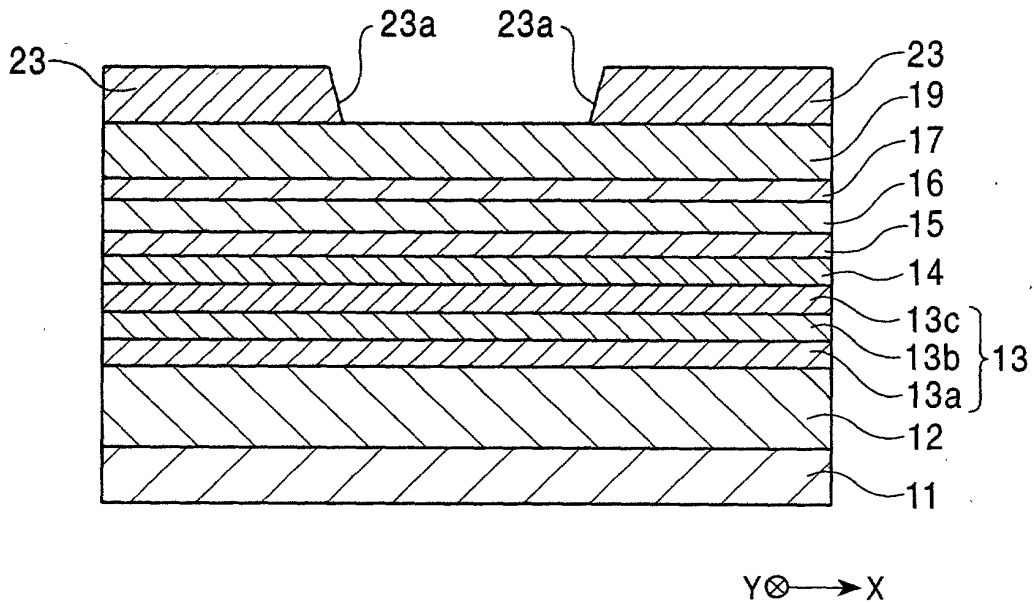
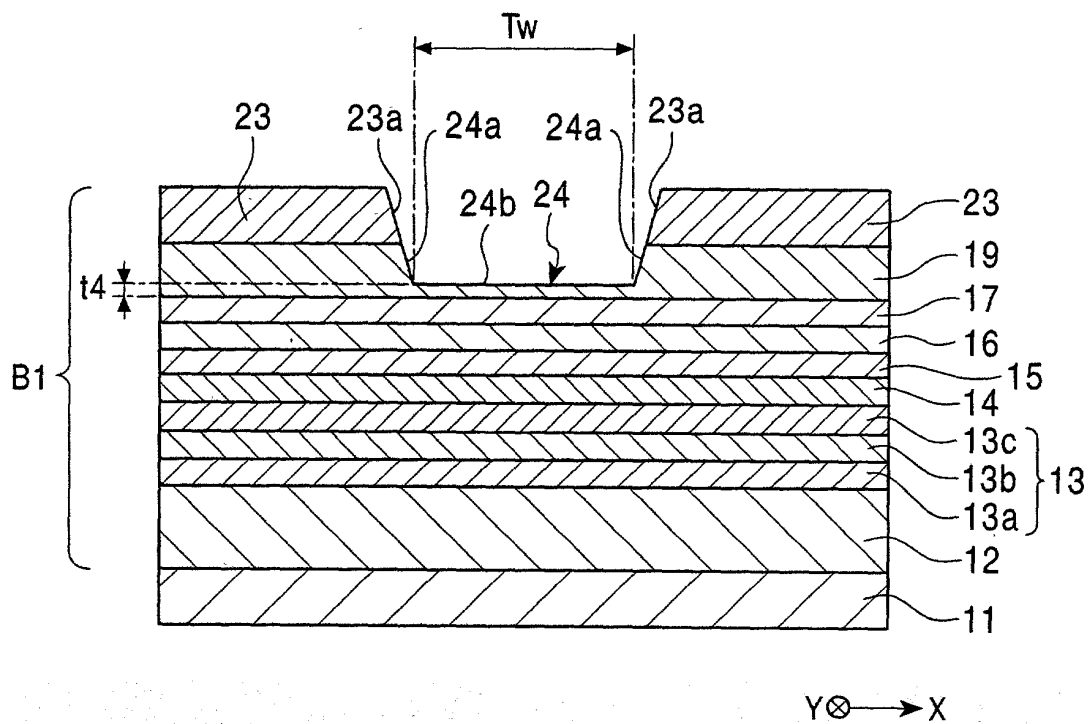
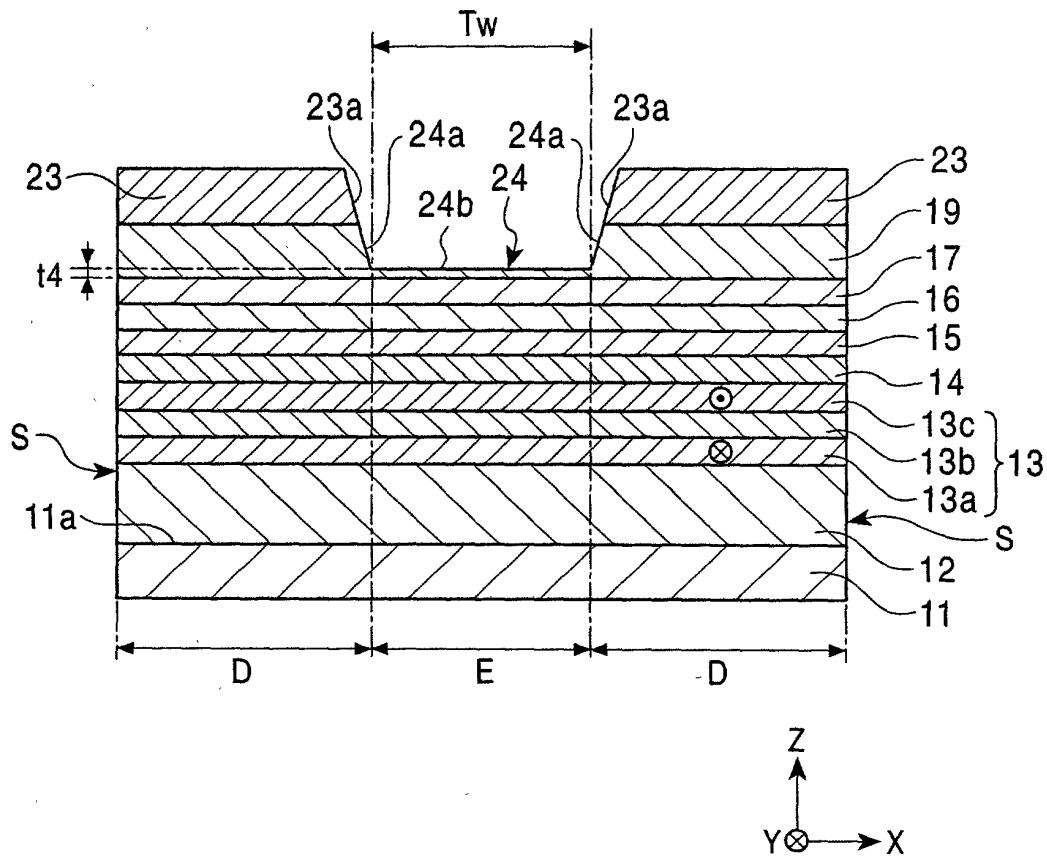


FIG. 32



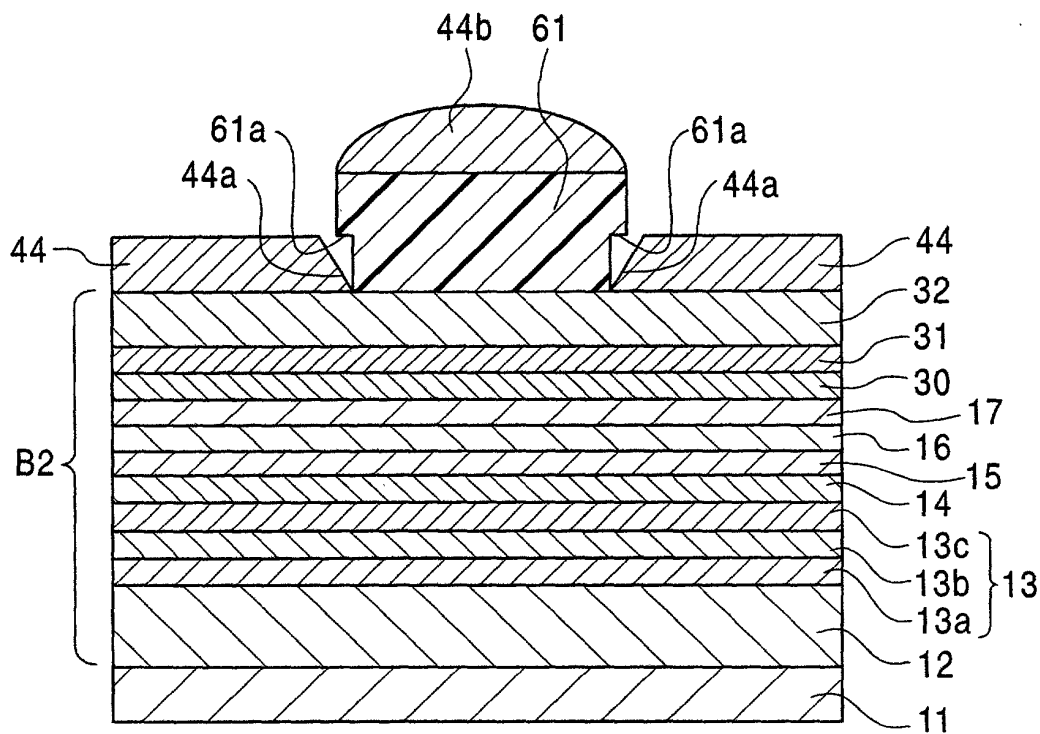
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FIG. 33



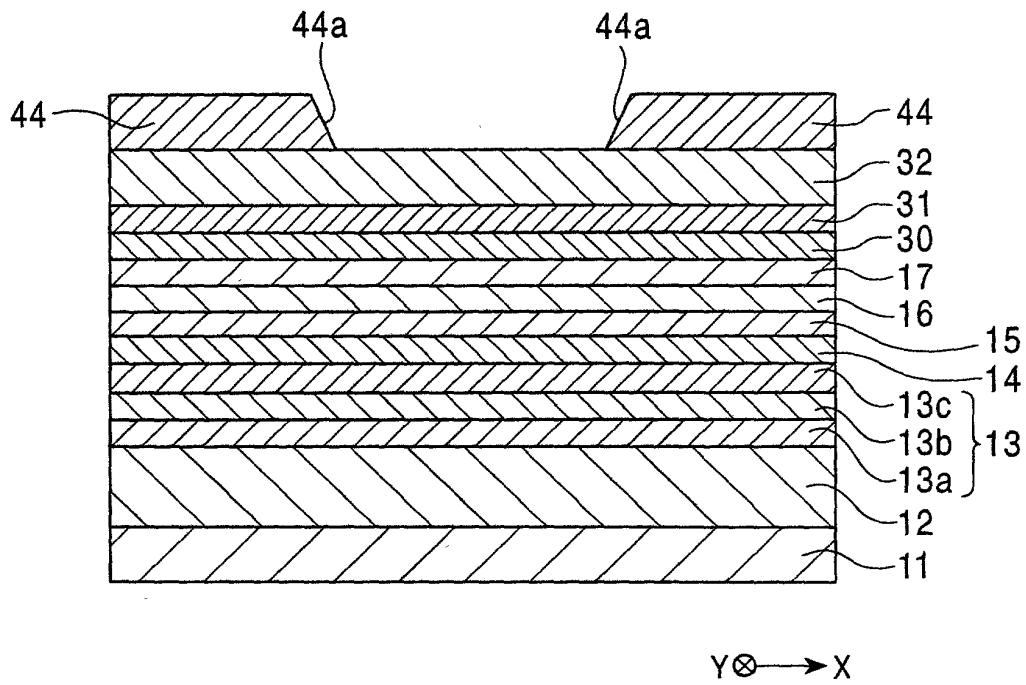
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FIG. 34



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FIG. 35



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FIG. 36

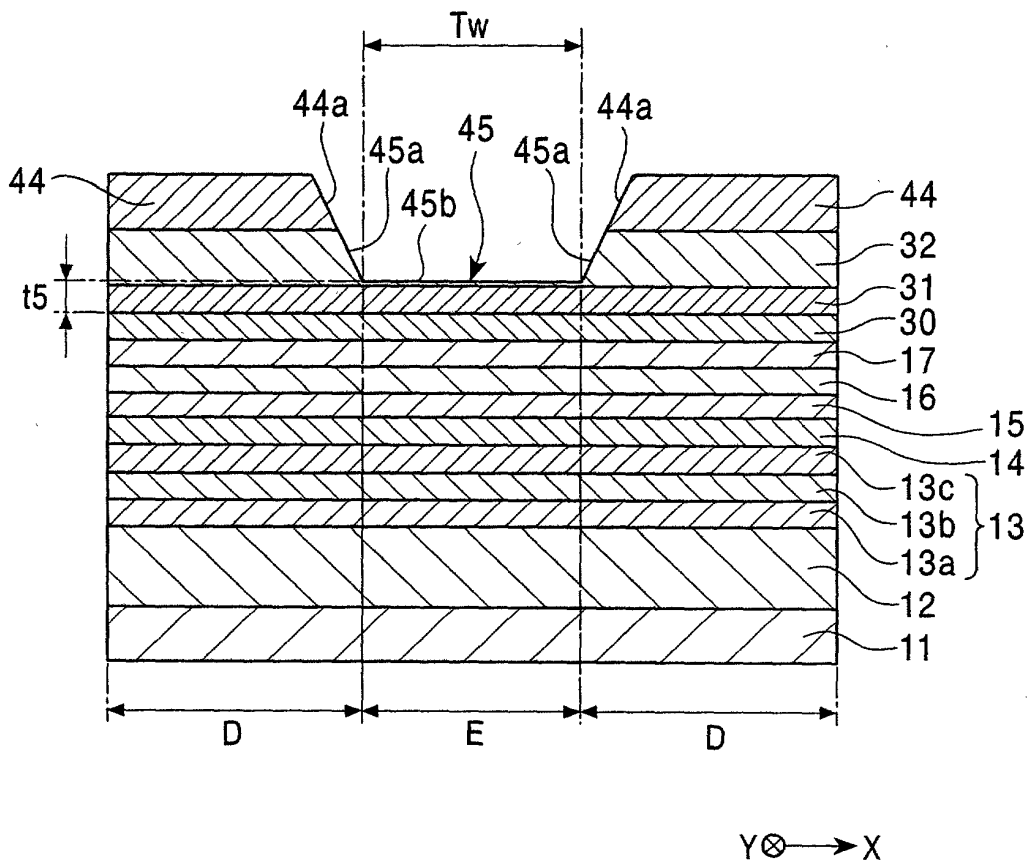


FIG. 37

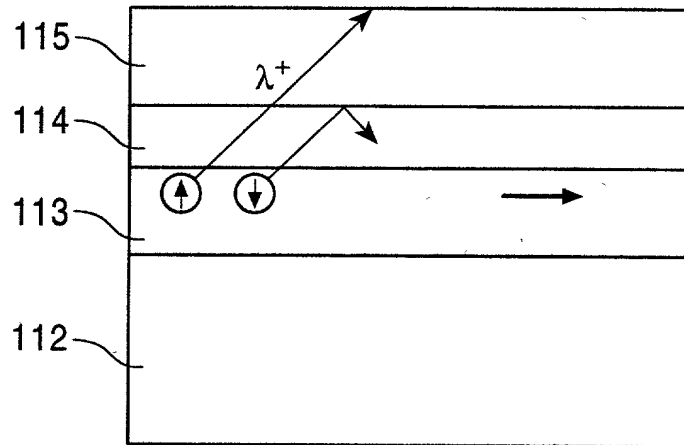


FIG. 38

